

Title (en)  
LUBRICATING OIL COMPOSITIONS

Publication  
**EP 0416914 B1 19930728 (EN)**

Application  
**EP 90309748 A 19900906**

Priority  
JP 23142689 A 19890908

Abstract (en)  
[origin: EP0416914A1] A lubricating oil composition having excellent oxidation stability and reduced sludge formation which comprises (I) a base oil which is a mineral oil having an aromatic content of up to 30 wt.%, a synthetic oil having no aromatic rings in the structural units or a mixture thereof, and, as essential additives, (II) an N-p-alkylphenyl-alpha-naphthylamine and (III) a p,p min -dialkyldiphenylamine each in a specific minor amount.

IPC 1-7  
**C10M 133/12**; **C10M 169/04**; **C10N 30/10**; **C10N 40/00**

IPC 8 full level  
**C10M 133/12** (2006.01); **C10M 169/04** (2006.01); **C10N 30/10** (2006.01); **C10N 40/30** (2006.01)

CPC (source: EP KR)  
**C10M 133/12** (2013.01 - EP KR); **C10M 169/04** (2013.01 - EP); **C10M 2203/02** (2013.01 - EP); **C10M 2203/022** (2013.01 - EP); **C10M 2203/024** (2013.01 - EP); **C10M 2203/04** (2013.01 - EP); **C10M 2203/10** (2013.01 - EP); **C10M 2203/104** (2013.01 - EP); **C10M 2203/106** (2013.01 - EP); **C10M 2205/026** (2013.01 - EP); **C10M 2205/028** (2013.01 - EP); **C10M 2207/281** (2013.01 - EP); **C10M 2207/282** (2013.01 - EP); **C10M 2207/283** (2013.01 - EP); **C10M 2207/286** (2013.01 - EP); **C10M 2207/289** (2013.01 - EP); **C10M 2207/34** (2013.01 - EP); **C10M 2209/104** (2013.01 - EP); **C10M 2209/105** (2013.01 - EP); **C10M 2215/06** (2013.01 - EP); **C10M 2215/064** (2013.01 - EP); **C10M 2215/065** (2013.01 - EP); **C10M 2215/066** (2013.01 - EP); **C10M 2215/067** (2013.01 - EP); **C10M 2215/068** (2013.01 - EP); **C10N 2020/01** (2020.05 - EP); **C10N 2040/00** (2013.01 - EP); **C10N 2040/02** (2013.01 - EP); **C10N 2040/08** (2013.01 - EP); **C10N 2040/135** (2020.05 - EP); **C10N 2040/20** (2013.01 - EP); **C10N 2040/22** (2013.01 - EP); **C10N 2040/25** (2013.01 - EP); **C10N 2040/251** (2020.05 - EP); **C10N 2040/252** (2020.05 - EP); **C10N 2040/253** (2020.05 - EP); **C10N 2040/255** (2020.05 - EP); **C10N 2040/28** (2013.01 - EP); **C10N 2040/30** (2013.01 - EP); **C10N 2040/32** (2013.01 - EP); **C10N 2040/34** (2013.01 - EP); **C10N 2040/36** (2013.01 - EP); **C10N 2040/38** (2020.05 - EP); **C10N 2040/40** (2020.05 - EP); **C10N 2040/42** (2020.05 - EP); **C10N 2040/44** (2020.05 - EP); **C10N 2040/50** (2020.05 - EP)

C-Set (source: EP)  
1. **C10M 2215/06 + C10M 2215/06**  
2. **C10M 2215/064 + C10M 2215/064**  
3. **C10M 2215/065 + C10M 2215/065**  
4. **C10M 2215/066 + C10M 2215/065**  
5. **C10M 2215/067 + C10M 2215/067**  
6. **C10M 2215/068 + C10M 2215/068**

Cited by  
US8999903B2; WO2008154334A1; EP0716141A3; US5658866A; US2010173811A1; US8318645B2; WO9516765A3

Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**EP 0416914 A1 19910313**; **EP 0416914 B1 19930728**; DE 69002426 D1 19930902; DE 69002426 T2 19940324; JP 2587296 B2 19970305; JP H0395297 A 19910419; KR 910021468 A 19911220; KR 930011077 B1 19931120

DOCDB simple family (application)  
**EP 90309748 A 19900906**; DE 69002426 T 19900906; JP 23142689 A 19890908; KR 900014170 A 19900907